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Jill V. Watson

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HAMMER & ASSOCIATES, P.C.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/803,710
Filing Date: March 18, 2004
Appellant(s): WATSON ET AL.

Robert H. Hammer III
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 4, 2008 appealing from the Office action mailed November 8, 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

A substantially correct copy of appealed claims 1-32 appears on pages 75-81 of the Appendix to the appellant's brief. The minor errors are as follows: the examiner notes that claims 9, 10, 14, 25, 26, 29 and 30 are not "currently amended" as the status identifier may otherwise state insofar as the amendment changing "70°C" to --70°C-- has already been entered in the previous amendment. As a matter of formality, it appears to the examiner that the status identifier for these claims should state that the claims are "previously amended".

(8) Evidence Relied Upon

4,298,666	TASKIER	11-1981
3,811,957	BUNTIN	5-1974

Material Safety Data Sheet for 2-ethylhexyl phosphate, "Victawet® 12 Surface Release Agent"

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the regards as his invention.

Claims 12 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which appellant regards as the invention.

The term "freshly coated" in claims 12 and 28 is a relative term which renders the claim indefinite. The term "freshly" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taskier (U.S. Pat. 4,298,666) in view of Buntin (U.S. Pat. 3,811,957).

Regarding claims 1 and 17, Taskier teaches a battery separator for a zinc battery comprising a first and second electrode and a separator disposed therebetween; the separator itself comprises a microporous membrane. See the Abstract and col. 17 lines 42-49. A coating comprising cellulose acetate polymer, *inter alia*, and a surfactant such as ethoxylated 2-ethylhexyl phosphate is applied thereon. See col. 17 line 50 et seq., col. 21 lines 36-67 and col. 23 lines 1-34.

For claims 1-4, 7, 8, 17-20, 23 and 24 the prior does not explicitly teach the relative weight percentage amounts of the cellulose acetate polymer and the surfactant or the surface density of the coating. However, it is asserted that optimization of weight percentages or surface density within the prior art conditions through routine experimentation is within the purview of

the skilled artisan absent of a showing of evidence or unexpected results indicating that these parameters are critical. “[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955)

For claims 5, 9, 10 and 21 and as to the cellulose acetate having about 2.5 acetyl groups per glucose and the separator having an electrical resistance of less than or equal to 10 milliohms-inch² or in the range of 7.7 to 10 milliohms-inch², it would naturally flow for the cellulose acetate and separator disclosed by Taskier to have, inherently, the same number of acetyl groups per glucose and electrical resistance as claimed, absent of a showing by appellant that the claimed invention distinguishes over the reference. *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977) and *In re Spada*, 15 USPQ 2d 1655 (Fed. Cir. 1990)

For claims 6, 11, 22 and 27 and as to the coating being on both surfaces of said membrane and the separator being adapted for wetting by an aqueous electrolyte, Taskier discloses that the surfactant allows aqueous electrolyte solutions to penetrate the entire pore structure. See col. 16 lines 30-36.

For claims 9, 10, 25 and 26 and as to the separator being stored for a period not less than 22 days and not exceeding 256 days at 70 °C, this limitation while considered by the examiner has not been given patentable weight as it is considered drawn to an intended use limitation which fails to give weight and scope to the claimed separator.

For claims 12 and 28, and to the extent that this claim is understood for the reasons set forth under 35 U.S.C. 112, second paragraph (discussion above), as to the separator being freshly coated and being wetted within 8 seconds or less, this limitation while considered by the

examiner has not been given patentable weight as it is considered drawn to a process-of-making limitation which fails to give weight and scope to the claimed separator.

For claims 13, 14, 29 and 30 and as to the separator being stored for a period not less than 22 days and not exceeding 256 days at 70 °C and said separator being wetted within 1 second or less or being wetted instantaneously, this limitation while considered by the examiner has not been given patentable weight as it is considered drawn to a process-of-using limitation which fails to give weight and patentable scope to the claimed separator.

For claims 15 and 31, the membrane has a thickness of less than 1.5 mils insofar as the preferred thickness of 0.7 to 2 mils comfortably overlaps therewith. See Taskier in col. 15 lines 56-61.

For claims 16 and 32, the separator has an effective average pore size of less than 0.045 micron, insofar as 200 Å equals 0.020 microns. See Taskier in col. 26 line 28-32.

Taskier does not explicitly teach an additional surfactant consisting of organic ethers. However, Buntin teaches a surfactant such as nonylphenoxy poly(ethylenoxy)ethanol for wetting out polypropylene structures of a battery separator. See Buntin in col. 12 lines 1-10. In Taskier, it is noted that the cellulose acetate polymer is employed *in admixture to* polyolefin polymers such as polypropylene. See Taskier in col. 8 line 67 et seq. and col. 17 lines 63-66. The skilled artisan would find obvious to employ an additional surfactant such as nonylphenoxy poly(ethylenoxy)ethanol in Taskier's invention. The motivation for such a modification is to effectively wet the battery, especially since "[o]ne of the characteristics of polypropylene is that it is not easily wettable by aqueous materials..." See Buntin in col. 11 line 59 et seq. The skilled artisan, recognizing that the polypropylene in the separator of Taskier "is not easily

wettable", would find obvious without undue experimentation to further enhance its wettability properties by employing the surfactant disclosed in Buntin specifically disclosed for enhancing polypropylene wettability.

(10) Response to Argument

Appellant's arguments, which start on page 9 of the Appeal Brief, have been fully considered by the examiner. However, these arguments are not found persuasive by the examiner for the following reasons.

Response to the argument that the term "freshly" is not indefinite under 35 U.S.C. 112:

On page 10, appellant submits that the term "freshly" is not indefinite under 35 U.S.C. 112. Relying on two versions of *Webster's Dictionary*, appellant submits that the term "freshly" is defined thereby as "recently; just now; newly and in a fresh manner". Appellant then asserts that the skilled artisan would be reasonably apprised that the scope of the claimed invention would include a battery separator which was newly or recently coated with a polymer and a first and second surfactant.

In reply, the assertion that the term "freshly" equates to "recently", "just now", or "newly and in a fresh manner" does not negate the 112, second paragraph rejection, as these terms are, in the opinion of the examiner, nothing more than equally indefinite terms which fail to further limit or give concise meaning to the term "freshly" as used in the claims. Stated differently, if the terms "recently", "just now", or "newly and in a fresh manner" were included in the claim language in lieu of the term "freshly", these terms would similarly raise 35 U.S.C. 112, second paragraph concerns as being indefinite for the same reasons. The examiner asserts that all of

these terms are relative terms, each of which renders the claim indefinite. The term "freshly" is not defined by the claim; it is noted that claims are wholly absent of any temporal boundary within which the separator is "freshly" coated. An example of a temporal boundary may be found in the very same claims which further state that the separator is "wetted within 8 seconds or less." Thus, the examiner deems the term "freshly" as indefinite as the term "freshly" is not defined in a temporal sense by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention since the dictionary definitions of this term are equally indefinite.

Response to the arguments submitted for the 35 U.S.C. 103(a) rejection of claims 1-16 as being unpatentable over Taskier (U.S. Pat. 4,298,666) in view of Buntin (U.S. Pat. 3,811,957):

On page 12 (last paragraph), appellant submits that the examiner has ignored the data, examples and unexpected results presented in the specification. Referring to Table1, appellant submits that Sample #1 utilized an organic ether as its sole surfactant, such as described in Buntin. In the same table, appellant submits that Sample #6 utilized 2-ethylhexyl dihydrogen phosphate as its sole surfactant, such as described in Taskier. Appellant then points out that Samples #2-5, which are allegedly representative of the presently claimed invention, have alleged superior wettability as measured in seconds, after 0 days, 22 days, 48 days, 104 days, 122 days and 256 days of storage at 70°C.

In reply, the examiner asserts that this data and allegation of unexpected results is insufficient to rebut the *prima facie* case of obviousness for the following reasons. Firstly, while

the examiner concedes that Sample #1 is fairly representative of Buntin insofar as comprising an organic ether and Sample #2 is representative of Taskier insofar as comprising 2-ethylhexyl dihydrogen phosphate, it must be emphasized that the present 35 U.S.C. 103(a) rejection is based on a combination of these references, e.g. Taskier in view of Buntin. Appellant's analysis in attacking the references individually is thus considered vastly piecemeal while wholly ignoring the combined teachings of the references. As well-established in case law, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Secondly, even if Sample #1 was fairly representative of the combined teachings of the prior art, as to the examiner ignoring the fact that Sample #1 "takes an increasingly longer time to wet as the length of its storage increases" (page 14 of the brief), the examiner asserts that there is no language in any of the claims drawn to wet times as a function of length of storage. The same can be said of appellant's assertion that the examiner "has also ignored the fact that Sample #6... loses its ability to wet as the length if [sic] its storage increases." (ib.) In sum, as to examiner's position being clearly an error "in failing to properly [sic] consider the comparative test data and unexpected results included in the specification of the instant application", this comparative test data is not deemed representative of the prior art relied upon insofar as 1) being a piecemeal analysis of the salient teachings, and 2) being outside the scope of the present claims.

On page 14 (last paragraph), appellant submits that "neither Taskier nor Buntin contain any information about using a combination of a first surfactant selected from the group consisting of organic ethers and a second surfactant being an oxirane polymer with 2-ethylhexyl

dihydrogen phosphate." By this line of argument, appellant is considered to concede that Taskier teaches the claimed first surfactant while Buntin teaches the claimed second surfactant, and is now concerned in addressing the combination of these salient teachings. Indeed, on page 16 (starting paragraph) appellant acquiesces that "Taskier discloses the use of ethoxylated 2-ethylhexyl phosphate as a surfactant and Buntin discloses the use of nonylphenoxy poly(ethyleneoxy)ethanol." Appellant further submits that "[n]either Taskier nor Buntin make any allusion to a combination of a first surfactant which is (1) inert to the electrolyte, (2) not soluble or readily soluble in the electrolyte, and (3) adherent to the membrane and a second surfactant which is (1) inert to the electrolyte and (2) increases the wetting speed and stability of the membrane without interfering with long term membrane storage life." (page 15 of the brief, paragraph bridging from page 14) On page 16 (starting paragraph), appellant submits that "as expressly admitted by the Examiner, there is no disclosure within Taskier as to the use of organic ethers alone or in combination with an additional surfactant."

In reply, the examiner maintains the motivation to combine the salient teachings of Taskier and Buntin as set forth above, to wit, "[t]he motivation for such a modification is to effectively wet the battery, especially since "[o]ne of the characteristics of polypropylene is that it is not easily wettable by aqueous materials...."" See Buntin in col. 11 line 59 et seq. This proposed modification is fully compatible with the teachings of Taskier, which uses a microporous separator membrane comprised of, *inter alia*, polypropylene. See Taskier in col. 8 line 67 et seq. and col. 17 lines 63-66. The argument that there is no disclosure in Taskier directed to the use of organic ethers either alone or in combination is not found persuasive, given that Buntin teaches organic ether surfactants and provides the requisite motivation for the

proposed modification of Taskier. And furthermore, in recognition of polypropylene having insufficient wettable properties (as disclosed by Buntin), the examiner maintains that the skilled artisan would find obvious to modify Taskier's separator comprised of polypropylene with the specific surfactant of Buntin in order to enhance its wettability property, especially in view of Buntin specifically addressing the problem of polypropylene not being otherwise "easily wettable by aqueous materials...." (ib.)

As to the assertion that the prior art does not make any allusion to the surfactants which are as previously mentioned inert, are soluble or readily soluble, adherent to the membrane, having an increased wetting speed or having a "shorter wetting time without affecting the long term storage life of the membrane" (top of page 17), these assertions are not considered persuasive as any language drawn to such properties are wholly absent from the scope of the present claims. At best, these properties are merely discussed on page 9 of the specification as being selection criteria by which the first and second surfactants may be chosen.

On page 18 (first paragraph), appellant submits that "it is obvious from the Examiner's response to [then-]'s first amended application that the Examiner misunderstood 's argument as being one-fold as evidenced by the reasons stated above." Appellant's assertion here is not fully understood; given the stream of arguments submitted in the present brief, this assertion appears to be a non sequitur. Notwithstanding, the response filed on August 30, 2007 in the opinion of the examiner actually did submit a single, i.e. one-fold argument insofar as the prior art not teaching "said surfactant which is an oxirane polymer...." See the August 30, 2007 response on page 11, top paragraph, middle paragraph and the bottom paragraph of page 12. All three instances merely submit the same argument: that the prior art does not teach or suggest a

surfactant which is an oxirane polymer. This sole argument was fully considered and addressed by the examiner on page 3 the Final Office action dated November 8, 2007, to wit, "Taskier teaches a surfactant such as ethoxylated 2-ethylhexyl phosphate." This teaching by Taskier is presently undisputed, as appellant appears to concede the point in this brief. The examiner finally notes that the MSDS for this compound is relied upon solely as a basis for this compound being known as a "polymer with oxirane".

On page 20 (at line 8), appellant submits that "[t]he polymers and copolymers disclosed in Taskier as precursor film are make [sic] no allusion as to the use of surfactants to wet the membrane in aqueous electrolyte in a short period of time or maintain the long term storage life of the membrane." Again, this argument is considered a piecemeal analysis of the combined teachings of Taskier in view of Buntin. Again, the examiner asserts that Buntin, in recognition of polypropylene having insufficient wettable properties, would motivate the skilled artisan to modify Taskier's separator comprised of polypropylene in further using an additional surfactant in order to enhance its wettability property. Buntin, taken in combination with Taskier, fully addresses the known problem of polypropylene not being otherwise "easily wettable by aqueous materials...." See Buntin in col. 11 line 59 et seq.

On page 21 at line 10, appellant submits that "[t]here is no disclosure within Taskier or Buntin that would allow for one skilled in the art to predict that using a combination of surfactants to coat one or both sides of a membrane would result in a shorter wetting time without affecting the long term storage life of the membrane. Similarly, on page 22 at line 6, appellant reiterates the same argument that the prior art does not teach the first and second surfactant "with the goal of decreased wetting times without affecting long term storage life." In

reply, again, the alleged "shorter wetting time without affecting the long term storage life of the membrane" is outside the scope of the present claims and at best, this property is merely discussed in the paragraph of page 9 bridging into page 10 of the specification as being selection criteria by which the second surfactant may be chosen. Furthermore, the examiner asserts that in combining the prior art teachings of Taskier and Buntin, the combined result is a predictable result. To this end, the examiner asserts that the prior art teaches each element claimed and that, even in combination, each of the surfactants in Taskier and Buntin performs the same function as it did separately. Buntin, taken in combination with Taskier, fully addresses the known problem of polypropylene not being otherwise "easily wettable by aqueous materials..." (ib.), thus, the skilled artisan would find obvious to modify Taskier in order to achieve the predictable result of increasing the wettability of the polypropylene material used in its separator.

Response to the arguments submitted for the 35 U.S.C. 103(a) rejection of claims 16-32 as being unpatentable over Taskier (U.S. Pat. 4,298,666) in view of Buntin (U.S. Pat. 3,811,957):

At the outset, the examiner notes that claims 17-32 are rejected on the same grounds as for claims 1-16. Stated differently, claims 1-16 and claims 17-32 (claims 1-32 *en toto*) are rejected under 35 U.S.C. 103(a) as being unpatentable over Taskier (U.S. Pat. 4,298,666) in view of Buntin (U.S. Pat. 3,811,957). To this end, the examiner further notes that the arguments presented by appellant starting on pages 22-32 under the heading "**CLAIMS 17-32 ARE PATENTABLE UNDER 35 U.S.C. 103(a)**" are the exact same arguments as presented by appellant on pages 12-22 under the heading "**CLAIMS 1-16 ARE PATENTABLE UNDER 35 U.S.C. 103(a)**". All of appellant's salient arguments on pages 22-32 have thus been fully

considered and addressed by the examiner as set forth in the previous section of this Examiner's answer.

Notwithstanding appellant's duplicate arguments, the examiner's response to the arguments presented on pages 22-32 are as follows: (note: the examiner's response in the following discussion is the same exact response, aside from the page and line references of the brief, as previously set forth for claims 1-16).

On page 22 (last paragraph), appellant submits that the examiner has ignored the data, examples and unexpected results presented in the specification. Referring to Table1, appellant submits that Sample #1 utilized an organic ether as its sole surfactant, such as described in Buntin. In the same table, appellant submits that Sample #6 utilized 2-ethylhexyl dihydrogen phosphate as its sole surfactant, such as described in Taskier. Appellant then points out that Samples #2-5, which are allegedly representative of the presently claimed invention, have alleged superior wettability as measured in seconds, after 0 days, 22 days, 48 days, 104 days, 122 days and 256 days of storage at 70°C.

In reply, the examiner asserts that this data and allegation of unexpected results is insufficient to rebut the *prima facie* case of obviousness for the following reasons. Firstly, while the examiner concedes that Sample #1 is fairly representative of Buntin insofar as comprising an organic ether and Sample #2 is representative of Taskier insofar as comprising 2-ethylhexyl dihydrogen phosphate, it must be emphasized that the present 35 U.S.C. 103(a) rejection is based on a combination of these references, e.g. Taskier in view of Buntin. Appellant's analysis in attacking the references individually is thus considered vastly piecemeal while wholly ignoring the combined teachings of the references. As well-established in case law, one cannot show

nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Secondly, even if Sample #1 was fairly representative of the combined teachings of the prior art, as to the examiner ignoring the fact that Sample #1 "takes an increasingly longer time to wet as the length of its storage increases" (page 24 of the brief), the examiner asserts that there is no language in any of the claims drawn to wet times as a function of length of storage. The same can be said of appellant's assertion that the examiner "has also ignored the fact that Sample #6... loses its ability to wet as the length if [sic] its storage increases." (ib.) In sum, as to examiner's position being clearly an error "in failing to properly [sic] consider the comparative test data and unexpected results included in the specification of the instant application", this comparative test data is not deemed representative of the prior art relied upon insofar as 1) being a piecemeal analysis of the salient teachings, and 2) being outside the scope of the present claims.

On page 24 (last paragraph), appellant submits that "neither Taskier nor Buntin contain any information about using a combination of a first surfactant selected from the group consisting of organic ethers and a second surfactant being an oxirane polymer with 2-ethylhexyl dihydrogen phosphate." By this line of argument, appellant is considered to concede that Taskier teaches the claimed first surfactant while Buntin teaches the claimed second surfactant, and is now concerned in addressing the combination of these salient teachings. Indeed, on page 26 (starting paragraph) appellant acquiesces that "Taskier discloses the use of ethoxylated 2-ethylhexyl phosphate as a surfactant and Buntin discloses the use of nonylphenoxy poly(ethyleneoxy)ethanol." Appellant further submits that "[n]either Taskier nor Buntin make

any allusion to a combination of a first surfactant which is (1) inert to the electrolyte, (2) not soluble or readily soluble in the electrolyte, and (3) adherent to the membrane and a second surfactant which is (1) inert to the electrolyte and (2) increases the wetting speed and stability of the membrane without interfering with long term membrane storage life." (page 25 of the brief, paragraph bridging from page 24) On page 26 (starting paragraph), appellant submits that "as expressly admitted by the Examiner, there is no disclosure within Taskier as to the use of organic ethers alone or in combination with an additional surfactant."

In reply, the examiner maintains the motivation to combine the salient teachings of Taskier and Buntin as set forth above, to wit, "[t]he motivation for such a modification is to effectively wet the battery, especially since "[o]ne of the characteristics of polypropylene is that it is not easily wettable by aqueous materials...."" See Buntin in col. 11 line 59 et seq. This proposed modification is fully compatible with the teachings of Taskier, which uses a microporous separator membrane comprised of, *inter alia*, polypropylene. See Taskier in col. 8 line 67 et seq. and col. 17 lines 63-66. The argument that there is no disclosure in Taskier directed to the use of organic ethers either alone or in combination is not found persuasive, given that Buntin teaches organic ether surfactants and provides the requisite motivation for the proposed modification of Taskier. And furthermore, in recognition of polypropylene having insufficient wettable properties (as disclosed by Buntin), the examiner maintains that the skilled artisan would find obvious to modify Taskier's separator comprised of polypropylene with the specific surfactant of Buntin in order to enhance its wettability property, especially in view of Buntin specifically addressing the problem of polypropylene not being otherwise "easily wettable by aqueous materials...." (ib.)

As to the assertion that the prior art does not make any allusion to the surfactants which are as previously mentioned inert, are soluble or readily soluble, adherent to the membrane, having an increased wetting speed or having a "shorter wetting time without affecting the long term storage life of the membrane" (top of page 27), these assertions are not considered persuasive as any language drawn to such properties are wholly absent from the scope of the present claims. At best, these properties are merely discussed on page 9 of the specification as being selection criteria by which the first and second surfactants may be chosen.

On page 28 (first paragraph), appellant submits that "it is obvious from the Examiner's response to [then-]'s first amended application that the Examiner misunderstood 's argument as being one-fold as evidenced by the reasons stated above." Appellant's assertion here is not fully understood; given the stream of arguments submitted in the present brief, this assertion appears to be a non sequitur. Notwithstanding, the response filed on August 30, 2007 in the opinion of the examiner actually did submit a single, i.e. one-fold argument insofar as the prior art not teaching "said surfactant which is an oxirane polymer...." See the August 30, 2007 response on page 11, top paragraph, middle paragraph and the bottom paragraph of page 12. All three instances merely submit the same argument: that the prior art does not teach or suggest a surfactant which is an oxirane polymer. This sole argument was fully considered and addressed by the examiner on page 3 the Final Office action dated November 8, 2007, to wit, "Taskier teaches a surfactant such as ethoxylated 2-ethylhexyl phosphate." This teaching by Taskier is presently undisputed, as appellant appears to concede the point in this brief. The examiner finally notes that the MSDS for this compound is relied upon solely as a basis for this compound being known as a "polymer with oxirane".

On page 30 (at line 8), appellant submits that "[t]he polymers and copolymers disclosed in Taskier as precursor film are made [sic] no allusion as to the use of surfactants to wet the membrane in aqueous electrolyte in a short period of time or maintain the long term storage life of the membrane." Again, this argument is considered a piecemeal analysis of the combined teachings of Taskier in view of Buntin. Again, the examiner asserts that Buntin, in recognition of polypropylene having insufficient wettable properties, would motivate the skilled artisan to modify Taskier's separator comprised of polypropylene in further using an additional surfactant in order to enhance its wettability property. Buntin, taken in combination with Taskier, fully addresses the known problem of polypropylene not being otherwise "easily wettable by aqueous materials...." See Buntin in col. 11 line 59 et seq.

On page 31 at line 10, appellant submits that "[t]here is no disclosure within Taskier or Buntin that would allow for one skilled in the art to predict that using a combination of surfactants to coat one or both sides of a membrane would result in a shorter wetting time without affecting the long term storage life of the membrane. Similarly, on page 22 at line 6, appellant reiterates the same argument that the prior art does not teach the first and second surfactant "with the goal of decreased wetting times without affecting long term storage life." In reply, again, the alleged "shorter wetting time without affecting the long term storage life of the membrane" is outside the scope of the present claims and at best, this property is merely discussed in the paragraph of page 9 bridging into page 10 of the specification as being selection criteria by which the second surfactant may be chosen. Furthermore, the examiner asserts that in combining the prior art teachings of Taskier and Buntin, the combined result is a predictable result. To this end, the examiner asserts that the prior art teaches each element claimed and that,

even in combination, each of the surfactants in Taskier and Buntin performs the same function as it did separately. Buntin, taken in combination with Taskier, fully addresses the known problem of polypropylene not being otherwise "easily wettable by aqueous materials..." (ib.), thus, the skilled artisan would find obvious to modify Taskier in order to achieve the predictable result of increasing the wettability of the polypropylene material used in its separator.

Response to the arguments submitted for the 35 U.S.C. 103(a) rejection of claims 1-16 and claims 17-32 as being unpatentable over Wensley (U.S. Pat. 6,479,190 B1) in view of Taskier (U.S. Pat. 4,298,666) and claims 17-32:

Appellant submits arguments for the 35 U.S.C. 103(a) rejection of claims 1-16 based on Wensley in view of Taskier on pages 32-42 and submits arguments for the 35 U.S.C. 103(a) rejection of claims 17-32 based on Wensley in view of Taskier on pages 42-52. Appellant's arguments for the 35 U.S.C. 103(a) rejection of claims 1-16 and claims 17-32 based on Wensley in view of Taskier have been fully considered. While the examiner notes that these arguments are the same arguments verbatim as presented by appellant for the prior art rejection based on Taskier in view of Buntin, the examiner has reconsidered this ground of rejection independently from appellant's arguments. To this end, while Wensley teaches all of the claim limitations except for an additional surfactant such as ethoxylated 2-ethylhexyl phosphate and while Taskier teaches this surfactant for a microporous battery separator application, Wensley in view of Taskier does not teach or suggest the combination of the first and second surfactant in admixture.

Response to the arguments submitted for obviousness-type double patenting rejection of claims 1-16 and claims 17-32 as being unpatentable over Wensley (U.S. Pat. 6,479,190 B1) in view of Taskier (U.S. Pat. 4,298,666) and claims 17-32:

Appellant submits arguments for the obviousness-type double patenting rejection of claims 1-16 on pages 52-63 and submits arguments for the obviousness-type double patenting rejection of claims 17-32 on pages 63-74. Appellant's arguments for the obviousness-type double patenting rejection of claims 1-16 and claims 17-32 based on Wensley in view of Taskier have been fully considered. While the examiner notes that these arguments are the same arguments verbatim as presented by appellant for the prior art rejection based on Taskier in view of Buntin, the examiner has reconsidered this ground of rejection independently from appellant's arguments and has withdrawn the obviousness-type double patenting rejection based on Wensley in view of Taskier for the same reasons of withdrawing the prior art rejection based on same.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Art Unit: 1700

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Julian Mercado/
examiner

Conferees:

/PATRICK RYAN/

Supervisory Patent Examiner, Art Unit 1795

/William Krynski/

Quality Assurance Specialist, TC 1700